With pregnancy typically comes a whole set of urgent concerns about health, yet despite the widely known threat of COVID-19 pregnant women are among the least likely to be vaccinated to protect against the disease’s most severe outcomes.

The low vaccination rate of pregnant women in the U.S. is concerning because of the increased risk of pregnancy complications due to SARS-CoV-2 infection, which include hospitalization and delivering a pre-term or stillborn infant. Two recent studies highlight the importance of COVID-19 vaccination to protect moms and their babies.

Published in *JAMA*, the research letter “Durability of Anti-Spike Antibodies in Infants After Maternal COVID-19 Vaccination or Natural Infection” shows that vaccination resulted in significantly greater antibody persistence in infants than in natural infection from SARS-CoV-2. At 6 months old, 57% of infants born to mothers who were vaccinated had detectable antibodies, compared with only 8% among infants born to moms infected with SARS-CoV-2.

Additionally, a new study from the Centers for Disease, Control and Prevention (CDC) showed that “infants whose mothers received two doses of an mRNA COVID vaccine during pregnancy are less likely to be admitted to the hospital for COVID in the first six months of their life,” Andrea Garcia, MPH, director of science, medicine and public health at the AMA, said during an episode of the “AMA COVID-19 Update” about supporting vaccination during pregnancy. “Overall, the researchers found that maternal vaccination was 61% effective at preventing infant hospitalization.”

“And that's due to those infants carrying their mothers’ antibodies but this is really important and really good news because we know that the authorization of a COVID vaccine in this age group is not likely anytime soon,” Garcia said.
Another JAMA original investigation published Feb. 7 found a link between SARS-CoV-2 infection and serious maternal mortality from obstetric complications.

Learn more in JAMA about how widespread misinformation about infertility continues to create COVID-19 vaccine hesitancy.

More reason to get vaccinated

In pregnancy, COVID-19 vaccination generates functional anti-spike (anti-S) IgG antibodies in the maternal circulation. These antibodies are detectable in umbilical cord blood at birth and can protect the newborn and infant from SARS-CoV-2. Anti-S IgG titers in the umbilical cord are associated with maternal titers, which are highest after late second and early third trimester COVID-19 vaccination, says the JAMA research letter.

Most infants born to COVID-19 vaccinated mothers had persistent anti-S antibodies at 6 months old compared with babies born to moms who had acquired SARS-CoV-2. That’s encouraging news because infections in this age group account for a disproportionate burden of pediatric SARS-CoV-2 associated morbidity, the study says. It’s also important because there are no plans to administer COVID-19 vaccines to infants under 6 months old.

These findings provide even greater incentive for all pregnant people to get vaccinated against COVID-19.


There’s risk for stillborn births

In a separate study published in Archives of Pathology & Laboratory Medicine, researchers found that pregnant mothers with COVID-19 are at higher risk for delivering stillborn babies due to placental failure. A 44-member international team of researchers studied 64 stillbirth cases and four early neonatal deaths from 12 countries to determine how COVID-19 caused perinatal deaths in unvaccinated mothers.

They concluded that COVID-19 could result in SARS-CoV-2 placentitis, an abnormality that caused an average of 77% placental destruction in cases of stillbirth and neonatal death. This pathology resulted in obstruction of maternal and fetal blood flow through the placenta leading to placental...
insufficiency and lack of oxygen to the fetus that was incompatible with survival. The investigators believe the virus reached the placenta by passing through the mother’s bloodstream.

“We have never seen this consistent level of placental destruction from an infectious illness before. It rendered the placenta unfit to carry out its duties,” said Dr. Schwartz, a perinatal pathologist in Atlanta, who led the study.

Find out what doctors wish patients knew about COVID-19 vaccines and pregnancy.

The AMA has developed frequently-asked-questions documents on COVID-19 vaccination covering safety, allocation and distribution, administration and more. There are two FAQs, one designed to answer patients’ questions (PDF), and another to address physicians’ COVID-19 vaccine questions (PDF).